

Amendments to the Claims

This listing of claims, if entered, will replace all prior versions and listings of claims in the above-identified application.

Listing of Claims

1-17. (Cancelled)

18. (Currently Amended) A method comprising:
- identifying a plurality of nodes of a network, wherein**
- said plurality of nodes are interconnected by one or more links;**
- executing one or more tasks within each of ~~[[a]]~~ **said** plurality of nodes of ~~[[a]]~~ **said** network, wherein
- ~~said plurality of nodes are interconnected by one or more links,~~
- said executing comprises
- generating first data identifying at least one node of said plurality of nodes at which, ~~said first data comprising at least one of:~~ **at least one of**
- ~~insert~~ **inserted** data is added, wherein
- said ~~insert~~ **inserted** data is ~~[[data]]~~ associated with
- said each of said plurality of nodes, and
- dropped data is ~~deleted~~ **dropped**, wherein
- said dropped data is ~~[[data]]~~ associated with said
- each of said plurality of nodes, ~~[[and]]~~
- generating** second data indicating a format of in-transit data
- transmitted over said ~~network~~ **one or more links**, and
- requesting, from at least one other node of said plurality of nodes, a format of data **transmitted** over a link of said one or more links attached to said at least one other node of said plurality of nodes~~[[, and]]~~ **;**

~~said second data is configured to indicate a format of in-transit data
being transmitted over said one or more links;~~
identifying a destination node of said in-transit data; and
transmitting said in-transit data to said destination node using said first data and
said second data; ~~and~~
~~identifying said plurality of nodes of said network.~~

19.-20. (Cancelled)

21. (Currently Amended) The method of claim 18, wherein
said ~~insert~~ inserted data comprises[[,]] data received by said each of said
plurality of nodes from said network, and
said dropped data comprises data transmitted from said each of said plurality of
nodes to said network.

22. (Currently Amended) The method of claim 18, wherein said executing
comprises requesting at least one of[[:]]
said ~~insert~~ inserted data from said node of said plurality of nodes at which ~~insert~~
said inserted data is **being** added; and
said dropped data from said node of said plurality of nodes at which said dropped
data is ~~being-deleted~~ dropped.

23. (Cancelled)

24. (Currently Amended) The method of claim 18, wherein said requesting
comprises:
requesting at least one of a synchronous transport signal type [[data]] and a
synchronous transport module type [[data]].

25. (Currently Amended) The method of claim 18, wherein said network satisfies at least one of [[:]] a first condition and a second condition, wherein
 [[a]] said first condition ~~wherein, to prevent misconnection in case of failure, traffic is:~~ is a failure, and in a case of said first condition, said in-transit data is
 switched ~~by dispatching said in-transit data~~ from a failed link of said one or more links to a redundant link of said one or more links, and
 squelched ~~between said one or more links~~, and
 [[a]] said second condition, wherein
 said in-transit data ~~being transmitted over each of said one or more links~~ is re-transmitted in data buckets to at least one predetermined node ~~from said network~~ of said plurality of nodes at regular intervals of time.
26. (Currently Amended) The method of claim 25, wherein[[:]]
 said network satisfies said first condition, and
 said executing one or more tasks within each of said plurality of nodes to generate said first data comprises[[:]]
preventing misconnection by performing squelching ~~to prevent misconnection.~~
27. (Currently Amended) The method of claim 25, wherein[[:]]
 said network satisfies said second condition, and
 said executing one or more tasks within each of said plurality of nodes to generate said first data comprises[[:]]
 for each data bucket, identifying at least one of[[:]]
 said plurality of nodes [[on]] at which ~~insert~~ said inserted data is ~~being~~ added via said each data bucket; and
 said plurality of nodes [[on]] at which said dropped data is ~~being~~ deleted dropped via said each data bucket.

28. **(Currently Amended)** The method of claim 18, further comprising:
detecting a failure on a first link of said one or more links ~~on said node of said~~
plurality of nodes communicating , wherein
said in-transit data **is communicated over said first link;**
identifying a redundant link ~~from said node communicating said in-transit data~~
to said destination node of said one or more links; and
switching traffic in response to said detecting by switching said in-transit data
from said first link to said redundant link ~~of said one or more links.~~
29. **(Previously Presented)** The method of claim 28, wherein said executing
one or more tasks within each of said plurality of nodes comprises executing said one or
more tasks within each of said plurality of nodes before said failure occurs.
30. **(Currently Amended)** An apparatus comprising:
means for identifying a plurality of nodes of a network, wherein
said plurality of nodes are interconnected by one or more links;
means for executing one or more tasks within each of said plurality of nodes,
wherein
means for executing comprises
means for generating first data identifying at least one node of said
plurality of nodes at which[[,]] **at least one of**
insert inserted data is added, wherein
said **insert inserted** data is [[data]] associated with
said each of said plurality of nodes, [[or]]
and
erase dropped data is ~~deleted~~ **dropped**, wherein
said dropped data is [[data]] associated with said
each of said plurality of nodes, [[and]]
means for generating second data indicating a format of in-transit
data ~~being~~ transmitted over said one or more links, and
means for requesting, from at least one other node of said
plurality of nodes, a format of data transmitted over a

link of said one or more links attached to said at least one other node of said plurality of nodes, and

said ~~insert~~ **inserted** data and said dropped data comprise at least one of data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes to said network;

means for identifying a destination node of said in-transit data; **and**

means for transmitting said in-transit data to said destination node using said first data and said second data; ~~and~~

~~means for requesting, from at least one other node of said plurality of nodes, a format of data being transmitted over a link of said one or more links attached to said at least one other node of said plurality of nodes.~~

31. (Cancelled)

32. **(Currently Amended)** The apparatus of claim 30, wherein said means for executing comprises:

means for requesting[[,]] said ~~insert~~ **inserted** data from said node of said plurality of nodes at which ~~insert~~ **said inserted** data is **being** added; and means for requesting said dropped data from said node of said plurality of nodes at which **said** dropped data is **being deleted** **dropped**.

33. (Cancelled)

34. **(Currently Amended)** The apparatus of claim 30, wherein said means for requesting comprises:

means for requesting at least one of a synchronous transport signal type **[[data]]** and a synchronous transport module type **[[data]]**.

35. **(Currently Amended)** The apparatus of claim 30, wherein said network satisfies at least one of**[[:]] a first condition and a second condition, wherein**

[[a]] said first condition ~~wherein, to prevent misconnection in case of failure, traffic is: is a failure, and in a case of said first condition, said in-transit data is~~
switched ~~by dispatching said in-transit data~~ from a failed link of
said one or more links to a redundant link of said one or
more links, and
squelched ~~between said one or more links~~, and
[[a]] said second condition, wherein
said in-transit data ~~being transmitted over each of said one or~~
~~more links~~ is re-transmitted in data buckets to at least one
predetermined node ~~from said network~~ of said plurality
of nodes at regular intervals of time.

36. (Currently Amended) The apparatus of claim 35, wherein[[,]]
~~said network satisfies said first condition, and~~
said means for ~~executing one or more tasks within each of said plurality of~~
~~nodes to generate~~ generating said first data comprises[[,]]
means for preventing misconnection comprising means for performing
squelching ~~to prevent misconnection~~ , if said network satisfies
said first condition.
37. (Currently Amended) The apparatus of claim 35, wherein[[,]]
~~said network satisfies said second condition, and~~
said means for ~~executing one or more tasks within each of said plurality of~~
~~nodes to generate~~ generating said first data comprises, ~~for each data~~
~~bucket~~, means for identifying[[[:]]] , for each data bucket, at least one of
at least one of said plurality of nodes [[on]] at which ~~insert~~ said inserted
data is ~~being~~ added via said each data bucket[[; or]] , and
at least one of said plurality of nodes [[on]] at which said dropped data is
~~being deleted~~ dropped via said each data bucket.
38. (Currently Amended) The apparatus of claim 30, further comprising:

means for detecting a failure on a first link of said one or more links ~~on said node~~
~~of said plurality of nodes communicating , wherein~~
said in-transit data is communicated over said first link;
means for identifying a redundant link ~~from said node communicating said in-~~
~~transit data to said destination node of said one or more links~~; and
means for switching traffic in response to said detecting by switching said in-
transit data from said first link to said redundant link.

39. (Previously Presented) The apparatus of claim 38, wherein said means for
executing one or more tasks within each of said plurality of nodes comprises means for
executing said one or more tasks within each of said plurality of nodes before said failure
occurs.

40. (Currently Amended) A network node comprising:
an interface ~~to couple said network node to a network~~, wherein
said interface is configured to couple said network node to a network,
said network comprises a plurality of nodes interconnected by one or more
links, and
said plurality of nodes comprises said network node; and
a timing communications and control processor configured to~~[[:]]~~
identify said plurality of nodes, ~~[[and]]~~
execute one or more tasks within network node, wherein
said timing communications and control processor is configured to
perform said execution by virtue of being configured to
generate first data identifying at least one node of said
plurality of nodes at which~~[[,]]~~ at least one of
~~insert inserted~~ data is added, wherein
said ~~insert inserted~~ data is data associated
with said each of said plurality of
nodes~~[[; or]]~~ , and
dropped data is ~~deleted dropped~~, wherein

said dropped data is data associated with
 said each of said plurality of nodes,
 [[and]]

generate second data indicating a format of in-transit data
being transmitted over said one or more links, and
request, from at least one other node of said plurality of
nodes, a format of data transmitted over a link of
said one or more links attached to said at least
one other node of said plurality of nodes, and
 said ~~insert~~ **inserted** data and said dropped data comprise at least
 one of
 data received by said each of said plurality of nodes from
 said network, and
 data transmitted by said each of said plurality of nodes to
 said network[[;]] ,

identify a destination node of said in-transit data[[;]] , **and**
 communicate said in-transit data to said destination node using said first
 data and said second data;~~and~~
~~**request, from at least one other node of said plurality of nodes, a**~~
~~**format of data being transmitted over a link of said one or**~~
~~**more links attached to said at least one other node of said**~~
~~**plurality of nodes.**~~

41. (Cancelled)

42. (Currently Amended) The network node of claim 40, wherein said timing
 communications and control processor **is further** configured to ~~execute one or more~~
~~tasks comprises:~~

~~a timing communications and control processor configured to:~~

request, from at least one other node of said plurality of nodes, said ~~insert~~
inserted data from said node of said plurality of nodes at which ~~insert~~
said inserted data is **being** added and said dropped data from said node of

said plurality of nodes at which said dropped data is ~~being deleted~~
dropped.

43. (Cancelled)

44. **(Currently Amended)** A machine-readable storage medium having a plurality of instructions executable by a machine embodied therein, wherein said plurality of instructions when executed are configured to cause said machine to perform a method comprising:

identifying a plurality of nodes of a network, wherein

said plurality of nodes are interconnected by one or more links; ~~[[and]]~~

executing one or more tasks within each of said plurality of nodes to ~~generate:~~

generate first data identifying at least one node of said plurality of nodes
at which~~[[,]]~~ at least one of

~~insert~~ inserted data is added, wherein

said ~~insert~~ inserted data is ~~[[data]]~~ associated with said

each of said plurality of nodes, ~~[[or]]~~ and

dropped data is ~~deleted~~ dropped, wherein

said dropped data is ~~[[data]]~~ associated with said each of

said plurality of nodes, ~~[[and]]~~

generate second data indicating a format of in-transit data ~~being~~

transmitted over said one or more links~~[[;]]~~ , and

request, from at least one other node of said plurality of nodes, a

format of data transmitted over a link of said one or more links

attached to said at least one other node of said plurality of

nodes;

identifying a destination node of said in-transit data; and

communicating said in-transit data to said destination node using said first data

and said second data; ~~and~~

~~requesting, from at least one other node of said plurality of nodes, data~~

~~indicating a format of data being transmitted over a link of said one~~

~~or more links attached to said at least one other node of said plurality of nodes.~~

45. (Currently Amended) The machine-readable storage medium of claim 44, wherein said ~~insert~~ inserted data and said dropped data comprises at least one of, data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes to said network.

46. (Currently Amended) The machine-readable storage medium of claim 45, wherein said executing comprises:

requesting, from at least one other node of said plurality of nodes, said ~~insert~~ inserted data from said node of said plurality of nodes at which ~~insert~~ said inserted data is ~~being~~ added and said dropped data from said node of said plurality of nodes at which said dropped data is ~~being deleted~~ dropped.

47. (Cancelled)